New Definition of the Useful Range Using a Reliable, Accurate, and Reproducible Test Procedure with Practical Relevance - Running a Field Test Tracked by a DGPS

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We have used a Differential Global Positioning System (DGPS) for tracking the search trajectories of a rescuer at three different orientations of the antenna of a transmitted beacon. Hence, it is possible to determine the useful range of the width of search strips for different beacons. All commercially available (digital) beacons in Winter 2007/2008 were tested at a 50 x 50 m area in a field study. As examples three runs of two beacons with different antenna positions of the transmitter is presented. A buried transmitted beacon with a vertical orientation of the antenna represents the worst case scenario for determining the search strip width.